

Fueling Automobiles Without Gasoline

What's Down The Road For Motorists? Biofuels!

(NAPS)—Biofuels, short for “biomass fuel,” is a near-term solution for motorists worried about gas prices and dwindling energy supplies. Biomass is any sort of vegetation—trees, grasses, plant parts, grain crops and woody crops. From it we can extract a wealth of stored energy. Biofuels significantly reduce net emissions of greenhouse gases compared to petroleum-based fuels. Plants grown for biofuels production also store carbon, which acts to mitigate the impacts of the carbon produced during fuel production.

Biomass—A Huge Renewable Energy Source

Biomass can produce electricity, heat, liquid fuels, gaseous fuels and a variety of useful chemicals, including those currently manufactured from fossil fuels.

Whether cultivated or growing wild, biomass represents a huge renewable energy source. Worldwide it is the fourth-largest energy resource after coal, oil and natural gas.

Ethanol And Beyond

Ethanol is the most widely used biofuel today. In 2004, production of ethanol from biomass (primarily corn grain) reached 3.8 billion gallons. All vehicles can run on E10, a blend of 10 percent ethanol and 90 percent gasoline. In fact, most people do not realize they are filling up their cars with E10.

Ethanol From Switchgrass

In the 2006 State of the Union address, the president, as part of the Advanced Energy Initiative announced, “We'll also fund additional research in cutting-edge methods of producing ethanol, not just from corn, but from wood



FUELING A DREAM—We're coming nearer to the day when ethanol made from the stalks of prairie grass could replace gasoline.

chips and stalks, or switchgrass.”

But what is switchgrass? Switchgrass is a perennial prairie grass growing naturally throughout the country, except in the far Western states. Since it is a native plant, switchgrass is resistant to many pests and diseases and can produce high yields with very low applications of fertilizers.

Since switchgrass grows well under a wide range of conditions, it has one of the highest potentials for use as a biofuel crop in the United States. Though ethanol from switchgrass is produced from cellulose in the stalks, it is identical to the ethanol currently produced from corn and has properties making it more attractive than corn ethanol.

Recent technological developments are not only improving yields, but are also driving down production costs, bringing us nearer to the day when cellulosic ethanol could significantly add to U.S. transportation fuel supply.

For more information, visit www.eere.energy.gov/biomass.